

PAPERS, REPORTS, PRESENTATIONS & PROFESSIONAL PROCEEDINGS

"Telecommunications Trade and Investment Opportunities in China and India," presented to the Massachusetts Telecommunications Council, Boston, February 1995.

"The Strategic Implications of Interactive Broadband Telecommunications Networks for Competition and Public Policy," presented to the National Communications Forum, Chicago, September 1994.

"Competitive Implications of Vertical Relations between Equipment Vendors and Telecommunications Services: Lessons from the French Experience," with Joanne Oxley, presented to European Regional Conference of the International Telecommunications Society, Stenungsbaden, Sweden, June 21, 1993.

"Obtaining Competitive Intelligence and Creating Competitive Advantage through the Public Policy Process," with Steven Harris, invited paper, Annual Conference of the Society for Competitive Intelligence Professionals, Los Angeles, April 2, 1993.

"Deployment and Adoption of Integrated Services Digital Network in the U.S.: Progress and Public Policy Obstacles," with Luis Enriquez, invited paper, Twenty-Fourth Annual Conference, Michigan State University Institute of Public Utilities, Williamsburg, Virginia, December 8, 1992.

"Market Definition and Market Power in the Sports and Entertainment Industry," invited presentation, Antitrust Section, American Bar Association Annual Proceedings, San Francisco, August 1992.

"The Design of Incentive Regulation for Telecommunications," invited presentation, Conference on Alternative Regulation, Illinois Commerce Commission, Chicago, July 1992.

"The Effects of Public Policies on ISDN Deployment and Adoption in the U.S.," presented to International Telecommunications Society, Cannes, France, June 1992.

"Removing the MFJ Restriction on InterLATA Services," invited testimony, Subcommittee on Telecommunications & Finance, U.S. House of Representatives, Washington D.C., May 1992.

"The Implications of Telecommunications Infrastructure Investment for R&D, Innovation and Competitiveness," invited testimony, Subcommittee on Communications, U.S. Senate, Washington D.C., February 1992.

"Principles of Costing and Pricing for Telecommunications Regulatory Policy," invited testimony, Colorado Public Utilities Commission En Banc Hearing, Denver, February 1992.

"Deregulation and Interstate Bank Entry in California," with Lee Burke, Research Report of the California Policy Seminar, UC Berkeley, April 1991.

"Assessing the Future of Telecommunications in the Global Economy," invited address, California Telephone Association, Monterey, CA, February 1991.

"Economic Rationale for a National Fiber Optic Infrastructure," invited address, Congressional Staff Forum on Telecommunications (sponsored by Ameritech), Washington D.C., February 1991.

"Applications of Incentive Regulation: An International Comparison," invited presentation, Conference of California Public Utilities Counsel, Long Beach, CA, October 1990.

"The Role of Telecommunications in Regional Economic Development," invited address, Rocky Mountain State Leaders Conference, Billings, Montana, October 1990.

"Telecommunications and Public Policies in the Global Market," invited address, Carnegie Council, New York, NY, October 1990.

"Why We Need a National Telecommunications Policy: A Comparative Perspective," invited address, Policy Issues Management Conference, Bell Communications Research, Murray Hill, NJ, October 1990.

"Incentive Regulation for Telephone Utilities," invited presentation, Workshop of the Colorado Public Utilities Commission, Denver, September 1990.

"The Role of Telecommunications Policy," invited lecture, Conference on Economic Development in the Pacific Northwest, Portland, Oregon, September 1990.

"The Changing Economics of Telecommunications: Implications for U.S. Policy and Competitiveness," invited briefing of U.S. Congressional staff on telecommunications (sponsored by Pacific Telesis), San Francisco, August 1990.

"Communications Competitiveness and Infrastructure Modernization Act of 1990," invited testimony, Communications Subcommittee, U. S. Senate, Washington D.C., July 1990.

"Investing in America's Future," invited essay, 1989 Annual Report of Southwestern Bell Corporation, St. Louis, 1990.

"The Public Switched Telephone Network and Rural Economic Development," invited lecture, Montana State Leaders' Conference, Helena, April 1990.

"Is Public Policy Meeting the Needs of Consumers?" invited panelist, Conference on Telecommunications Technologies and Policies, Center for Communications and Information Science & Policy, University of Pennsylvania, March 1990.

"Telecommunications as a Strategic Industry," invited address, New England Council, Boston, February 1990.

"Fiber to the Customer: A Public Policy Perspective," invited paper, Western Communications Forum, San Diego, February 1990.

Session Chair and Moderator, "State Regulatory Reform: Recent and Future Trends," Fifth Conference on State Telecommunications Regulation, University of Utah, Salt Lake City, January 1990.

Invited Panelist, "Crossroads of Information Technology," Board on Telecommunications and Computer Applications, National Academy of Engineering, Washington D.C., October 1989

Invited panelist in the "Industry Forum," Annual Meeting of the U.S. Telephone Association, San Francisco, October 1989.

"Strategic Lessons from Deregulated Industries," paper presented to Strategic Management Society, San Francisco, October 1989.

"Deregulation in the Transportation Industries: Lessons for Telecommunications Managers," invited paper, Center for Telecommunications Management, University of Southern California, October 1989.

"Price Cap Regulation and Economic Forecasting," invited presentation to 1989 National Forecasting Conference, Bell Communications Research, San Francisco, May 1989.

"The Strategic Implications of Telecommunications Deregulation in Europe," invited presentation, Strategic Management Society, Amsterdam, October 1988.

"Telecommunications Deregulation: Implications for the California Economy," invited presentation, California Foundation for the Environment and the Economy, Carmel, June 1988.

"A Comparison of U.S. and Japanese Policies toward Information Technologies," invited presentation, International Public Economics Association, Tokyo, May 1988.

"Information Technologies, Public Policy, and Regional Economic Development," invited address, Conference on Regional Development in Japan, Hokkaido University, Sapporo, Japan, May 1988.

"The Implications of Line-of-Business Regulation for Diversification Strategy & Enterprise Structure," presented to Strategic Management Society, Boston, October 1987.

"Alternative Regulatory Frameworks for Local Exchange Carriers," invited presentation, En Banc Hearing of the California Public Utility Commission, September 1987.

"Emerging Telecommunications Policies in Europe," Briefing of California Legislative Leaders, Los Angeles, September 1987.

"Japanese Corporate Philanthropy in the United States," presented to Academy of Management, New Orleans, August 1987; Center for Research in Management Working Paper BPP-23; published in summary form in *Strategic Directions*, with Barbara Lombardo and David Vogel, April 1989.

"The Effects of Deregulation on Competition and Competition Policy in Banking: A Review of the Literature," Working Paper No. 4, National Center for Financial Services, Berkeley, August 1987.

"Competitive Strategies under Regulatory Constraint: Implications of the AT&T Divestiture on Vertical Relations in Telecommunications," with David J. Teece, paper presented to Strategic Management Society, Singapore, 1986.

"The Economic Consequences of Deregulation," invited address, Emerging Issues Program, Conference of National State Legislative Leaders, Los Angeles, September 1986.

"Public Policies toward Utility Diversification: An Overview," invited presentation, California Policy Seminar/California Senate Office of Research, Berkeley, April 1986.

"New Technologies for Local Loop Access: An Economic and Regulatory Analysis," with Gary Pisano, Office of Technology Assessment, United States Congress, June 1985.

"Corporate Community Involvement in the Greater San Francisco Bay Area," with D. Vogel and J. Logsdon, Center for Research in Management Working Paper, Berkeley, May 1985.

"The Future of Telecommunications Regulation," invited presentation, En Banc Hearing of the California Public Utilities Commission, San Francisco, November 1984.

"Testimony in Support The Taxpayer Antitrust Enforcement Act," Judiciary Committee, U.S. Senate, May 1984.

ADMINISTRATIVE POSITIONS, UNIVERSITY OF CALIFORNIA**WALTER A. HAAS SCHOOL OF BUSINESS**

Chair, Business and Public Policy Group (1983-84, 1986-93).
Policy and Planning Committee (1986-88; 1991-93); Chair (1987-88; 1992-93).
Chair, Program in Business and Social Policy (1986-90).
Business School Building Program Committee (1986-91).
Ph.D. Field Advisor, Business and Public Policy (1981-87; 1989-91).
Policy and Planning Committee (1991-3; Chair, 1992-93).
Member, Board of Directors, Washington Campus Program (1990-93).
Director, The Executive Program (1983-85).
Director, Executive Programs in Telecommunications (1989-92).
Chair, Executive Education Task Force (1991-93).
Member, Board of Directors, Berkeley Center for Executive Development

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Executive Committee, Center for Research in Management (1989-).
Advisory Board, Lester Center for Innovation and Entrepreneurship (1992-).
Chancellor's Advisory Committee on Parking (1988-89).
Executive Committee, National Financial Services Center (1986-88).
Executive Committee, Institute of Transportation Studies (1981-83).
Director, Center for Transportation Policy Research (1980-2).

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Working Group on Technology Transfer (1988-90).
Task Force on Telecommunications and Information Policy Research (1984-85).

PROFESSIONAL AFFILIATIONS

American Economic Association
Academy of Management
Strategic Management Society
International Telecommunications Society
Association of Public Policy Analysis and Management

SERVICE TO PROFESSIONAL JOURNALS, SOCIETIES & PUBLIC AGENCIES

Governor's Ad Hoc Committee, Golden State Quality Awards (1991-92)
Chair, Ninth Annual International Conference of the Strategic Management Society, 1989, San Francisco
Associate Editor, California Management Review
Associate Editor, Logistics and Transportation Review
Editorial Advisory Board, Transportation Research
Session organizer, Telecommunications Policy Research Conference (1988, 1989)
Session organizer, Academy of Management (1991).
Reviewer/Referee: Bell/RAND Journal of Economics; Industrial and Corporate Change; Journal of Asian Economics; Journal of Economics and Business; Journal of Public Policy Analysis & Management; Journal of Regulatory Economics; National Science Foundation; Quarterly Review of Economics and Business; Review of Economics and Statistics; Telecommunications Policy.

CONSULTING & TESTIMONY

Economic Consulting to Public Agencies:

California Department of Consumer Affairs (industry analysis; telecommunications policy); California Office of Attorney General (antitrust analysis in tire industry, merger analysis in food retailing industry, resale price maintenance in consumer electronics, infant formula pricing); California Public Utilities Commission (teach regulatory economics & policy to Commission staff); Interstate Commerce Commission (rate regulatory policy, merger policy, costing methodology); Office of Technology Assessment (telecommunications policy); U.S. Department of Transportation (railroad industry rationalization, merger policy); U.S. General Accounting Office (transportation policy).

Economic Consulting/Regulatory Expert Testimony to Private Enterprise:

Pacific Bell (product pricing, competitive strategy, regulatory policy, broadband deployment, MFJ interLATA relief); US WEST (regulatory policy, costing and pricing principles); Ameritech (price regulation; local competition policy); General Telephone (pricing, regulatory policy); Western Coal Traffic League (railroad pricing); Consolidated Freightways (motor carrier pricing); Southern Pacific Transportation Co. (route rationalization analysis; rail merger analysis; pricing of trackage rights); American Presidents Intermodal Co. (competition policy, merger analysis); Bell Communications Research (R&D policy analysis); Bell Atlantic (price regulation, cable rate regulation; cellular telephone joint venture); Southwestern Bell (price regulation, local competition policy); BellSouth (price regulation, local competition policy); NYNEX (FCC spectrum auction rules); United States Telephone Association (FCC price regulation); MFJ Task Force (MFJ manufacturing relief).

Economic Consulting/Business Litigation Expert Witness Testimony:

Electrical contracting; biotechnology manufacturing equipment; pipe fabrication; vision care services; electronic lighting ballasts; motion picture production, distribution and exhibition; regional shopping center development; semiconductor manufacturing equipment; digital-analog converters; workmen's compensation insurance; semiconductor manufacturing; semiconductor manufacturing.

PRIOR/OTHER EMPLOYMENT

Deputy Director, Cost, Economic and Financial Analysis, Bureau of Accounts, Interstate Commerce Commission, Washington, D.C. (on leave, University of California); (1980-81).
Director, ARTRAIN (traveling art education exhibit), Michigan Council for the Arts, Detroit, (1971-72).
President, Young America Corporation (direct marketing of specialty products), St. Louis (1969-71).
Public Relations Consultant (TIME, Inc.; Rockefeller for President Committee; Young Citizens for Humphrey; Student Coalition for Congressional Action), New York and Washington D.C. (1967-69).
Vice President, National Student Marketing Corporation, Washington D.C. (1966-67).
Staff Assistant, Office of the Governor, State of Oregon, Salem (1966).
Public Relations Field Representative, General Motors Corporation, Warren, Michigan (1965).

ATTACHMENT C

November 20, 1995

U 1001 C
Advice Letter No. 17879

Advice Letter Compliance Filing for Co-Carrier Interconnection Agreement
Public Utilities Commission of the State of California

Pacific Bell (Pacific) attaches for filing the Co-Carrier
Interconnection Agreement appended hereto.

We are submitting this Agreement in compliance with Decision
No. 95-07-054, July 24, 1995, mines, p. 37, where the Commission said:

"Accordingly, in those cases where CLCs are able to reach mutually agreeable terms and conditions for interconnection including compensation, the negotiating parties are free to execute such interconnection agreements without the need for Commission-imposed rules on terms and conditions.*

*Footnote 8. Commission approval of such mutually agreed on interconnection and compensation arrangement should be sought via an advice letter. Commission review will ensure that the arrangement is not unduly discriminatory nor anti-competitive."

The Co-Carrier Interconnection Agreement with MFS Intelenet of California, Inc. (MFS) is an important step in establishing local competition in California. It covers the following important areas:

-It allows immediate interconnection of MFS and Pacific networks for the exchange of local calls in a seamless manner. It calls for the use of "one-way" trunk groups by MFS and Pacific to facilitate network management, and establishes mutually agreed to meet points for interconnection.

-MFS will match the Commission approved "rating areas" for the rating of local and toll calls in Pacific's serving area. MFS will have access to NXX codes, and Pacific will not charge MFS for opening these codes in Pacific's switches.

PACIFIC BELL

-MFS will jointly provide switched access to allow customers and interexchange carriers to complete, or originate, toll calls over the MFS and Pacific networks. The Agreement provides for the sharing of switched access charges consistent with industry standards for jointly provided switched access services.

-Pacific and MFS have agreed to reciprocal compensation for local traffic at a rate of \$.0075 per minute. Rates comparable to Pacific's switched access rates will apply for the completion of intraLATA toll calls, and a rate of \$.0087 per minute applies to calls completed through interim number portability services.

-Pacific will allow access to a number of its support services under the Agreement. Access to E911, directory assistance, directory listing and call referral services is permitted. Additional services covering 900/976, and certain operator functions are also addressed.

-Resale of Pacific's unbundled links (loops) is also permitted beginning April 1, 1996. Prices are established for business and residence links based on geographic zones in California. The Zone 1 Basic Business Link rate is \$12.50 (including EUCL and CCL component). In addition, Pacific and MFS have agreed to non-recurring charges and coordination process for installation of Links.

-Interim number portability is provided through Pacific's Directory Number Call Forwarding Service (DNCF) at a rate of \$3.25 per month. In addition, non-recurring charges have been agreed upon.

The revenue effects of this Agreement on Pacific are uncertain and will depend upon a number of factors and future events. For that reason, we can only provide an estimated range of revenue effect. Pacific's estimate of that range is a loss of (annual effect) (\$9M - \$14M). This estimate is for this contract only, and does not include the broader revenue effects of local competition and related events.

Consistent with the Commission's contracting rules, Pacific will make the terms and conditions of this filing available to similarly situated CLCs for interconnection to Pacific's network.

In compliance with Section III.G of General Order No. 96-A, we are mailing a copy of this advice letter and Agreement to competing and adjacent Utilities and/or other Utilities, and interested parties. In addition, we are mailing copies to parties (lists attached) who filed testimony or comments in the Commission's Local Competition (R.95-04-043), Universal Service (R.95-01-020) or OANAD (R.93-04-003) proceedings.

PACIFIC BELL

This filing will not increase any existing rate or charge, cause the withdrawal of service nor conflict with any other schedules or rules.

Anyone may protest this advice letter to the California Public Utilities Commission. The protest must set forth the specific grounds on which it is based, including such items as financial and service impact. A protest must be made in writing and received within 20 days of the date this advice letter was filed with the Commission. The address for mailing or delivering a protest to the Commission is:

Chief, CACD Telecommunications Branch
505 Van Ness Avenue, Room 3203
San Francisco, CA 94102


A copy must be mailed to the undersigned utility on the same date it is mailed or delivered to the Commission.

We ask that this advice letter become effective January 1, 1996.

Yours truly,

PACIFIC BELL




Executive Director

Attachments

PACIFIC BELL

PUBLIC UTILITIES COMMISSION
R.95-04-043/I.95-04-044

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CO-CARRIER AGREEMENT

NOVEMBER 17, 1995

Pursuant to this Co-Carrier Agreement ("Agreement"), MFS Intelenet of California, Inc. ("MFS") and Pacific Bell ("Pacific") (collectively, "the Parties") will extend certain arrangements to one another within each LATA in which they both operate within the State of California, as described and according to the terms, conditions and pricing specified hereunder. This Agreement is an integrated package that reflects a balancing of interests critical to the Parties. It will be submitted to the California Public Utilities Commission as a compliance filing, and the Parties will specifically request that the Commission refrain from taking any action to change, suspend or otherwise delay implementation of the Agreement. So long as the Agreement remains in effect, the Parties shall not advocate before any legislative, regulatory, or other public forum that any terms of this specific Agreement be modified or eliminated. Notwithstanding this mutual commitment, however, the Parties enter into this Agreement without prejudice to any positions they have taken previously, or may take in the future in any legislative, regulatory, or other public forum addressing any matters, including matters related to the types of arrangements prescribed by this Agreement.

I. RECITALS & PRINCIPLES

WHEREAS, universal connectivity between competing common carriers is necessary for the termination of traffic on each carrier's network; and

WHEREAS, absent such connectivity the utility of communications services to individual consumers and to society as a whole would be severely and unnecessarily diminished; and

WHEREAS, the Parties should be able to efficiently, flexibly, and robustly exchange traffic and signalling at well-defined and standardized points of mutually agreed interconnection; and

WHEREAS, the Parties acknowledge that the terms and conditions herein represent a balancing of interests critical to the parties, and for that reason will, unless otherwise agreed, implement this Agreement as an integrated package without alteration of any material term or condition, or the inclusion or deletion of terms and conditions that would serve to alter a material term or condition herein;

NOW, THEREFORE, in consideration of the mutual provisions contained herein and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, MFS and Pacific hereby covenant and agree as follows:

II. DEFINITIONS

- A. "Automatic Number Identification" or "ANI" is a Feature Group D signalling parameter which refers to the number transmitted through the network identifying the billing number of the calling party.**
- B. "Calling Party Number" or "CPN" is a Common Channel Signalling parameter which refers to the number transmitted through the network identifying the calling party.**

- C. **"Central Office Switch", "Central Office" or "CO" means a switching entity within the public switched telecommunications network, including but not limited to:**

"End Office Switches" which are Class 5 switches from which end user Exchange Services are directly connected and offered.

"Tandem Office Switches" which are Class 4 switches which are used to connect and switch trunk circuits between and among Central Office Switches.

Central Office Switches may be employed as combination End Office/Tandem Office switches (combination Class 5/Class 4).

- D. **"CLASS Features" mean certain CCS-based features available to end users. CLASS features include, but are not necessarily limited to: Automatic Call Back; Call Trace; Caller ID and Related Blocking Features; Distinctive Ringing/Call Waiting; Selective Call Forward; Selective Call Rejection.**
- E. **"Commission" means the California Public Utilities Commission.**
- F. **"Common Channel Signalling" or "CCS" means a method of digitally transmitting call set-up and network control data over a special network fully separate from the public switched network elements that carry the actual call.**